



# State of Declarations

The increasing role of environmental impact disclosures

**M**ore and more rating systems, standards and green building codes—LEED V4, ASHRAE 189.1 and IgCC, respectively—require companies submit Environmental Product Declarations (also known as “ecolabels”) and, by extension, their foundational documents, Product Category Rules. EPDs are also increasingly a contractual requirement; in California, for example, EPDs will be mandatory for state projects per Assembly Bill AB262.

In addition, individual building product manufacturers can use EPDs to develop a corporate sustainability report, and to evaluate their supply chain and its compliance with their own environmental policy. They can lead to more operational efficiency and, used as a marketing initiative, in the case of window EPDs, they can serve as the basis for LEED credits for the project in which the product is used.

### The process

EPDs are the culmination of a three-step process that begins with developing a PCR for the product type which sets forth requirements for developing EPDs for products within the product category. They are developed in an open and collaborative manner, much like industry standards. A PCR for a given product category can be produced in one of two versions.

A business-to-business PCR covers manufacturing from raw material extraction to the finished product, also known as “cradle to gate.” A business-to-consumer PCR, the scope of which is termed “cradle to grave,” starts with the business-to-business information but adds the environmental impacts of the product’s use and final disposal. The PCR drives a Life Cycle Assessment of the product category and its entire supply chain, the methodology for which is set forth in ISO procedures 14010 and 14044.

The next stage is creating the EPD it-

self, based on the LCA results and according to ISO 14025, Environmental Labels and Declarations - Type III Environmental Declarations - Principles and Procedures. In addition, PCRs for building products are formulated in ISO 21930, Sustainability in Buildings and Civil Engineering Works, a refinement of ISO 14025 that recognizes a product or material as a functioning component of a building and injects additional EPD requirements.

The final result is an “ecolabel” analogous to nutritional labels on food packaging. The EPD labels disclose the environmental performance of products based on an LCA (see “What’s in a Label” info box at top right). EPDs can be issued on a specific product from a specific manufacturer or for a generic product from a group of manufacturers (such as an association).

An independent program operator must validate the PCR and EPD development processes. UL Environment, ASTM, thinkstep and others are North American program operators functioning under ISO 14025. Such validation is important, as a breakdown in any link of the PCR - LCA - EPD chain can undermine the reliability of an EPD, potentially subjecting the issuing company to misrepresentation or contract liability.

### Fenestration EPDs

Two generic fenestration-related products were issued in 2016: an EPD by the Aluminum Extruders Council for aluminum extrusions (both ordinary and thermally improved), and a PCR from Insulating Glass Manufacturers Alliance/Glass Association of North America for processed glass that covered coated, laminated, heat-treated and insulating glass.

Concluding four years of work funded by the Department of Energy’s National Renewable Energy Laboratory, AAMA, along with IGMA, GANA and the Window and Door Manufacturers Association, developed and published the Window Prod-

### What’s in a Label

*An EPD “ecolabel” shows some or all of the following impacts, expressed where applicable in terms of equivalent CO2 emissions:*

- Climate change
- Depletion of the stratospheric ozone layer
- Acidification of land and water sources
- Eutrophication
- Formation of photochemical oxidants
- Depletion of fossil energy resources
- Depletion of mineral resources
- Any harmful contents of the product

uct Category Rule in September 2015.

The Window PCR provides guidance for our industry and individual manufacturers to produce business-to-business EPDs. The product scope includes single windows and skylights for both residential and commercial markets, plus curtain wall and storefronts. The current window PCR will expire on Sept. 9, 2020 but has had limited use in the market.

Meanwhile, the development group is considering moving forward with two or more cradle-to-grave/business-to-consumer versions of the window PCR. The AAMA Sustainability Steering Committee is also exploring the development of industry-wide fenestration EPDs, driven primarily by the Vinyl Materials Council. ▣

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